

ABSTRACT

The invention provides a speech model training technique for speech recognition. The training technique is first separating inputted speech and modeling it into a compact speech model with clean voice and an environmental interference model. Then, the environmental noises in the inputted speech will be filtered out according to the environmental interference model, and an environment-effect suppressed speech signal will be obtained. Next, the speech signal and the compact speech model will be estimated by the discriminative training algorithm to obtain a compact speech training model with high discriminative capability, which can be provided to the speech recognition device for its subsequent speech recognition processing. Therefore, the speech training model applying the algorithm of the invention can possess not only the robust capability and the discriminative capability, but also the high recognition rate. For this reason, the speech training model is suitable for compensation recognition in a noisy environment as well as capable of achieving precise control in environmental effects.